

REMARKS

Claim 24 stands rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. The claim has been amended in a readily apparent manner in response to this rejection. Withdrawal is respectfully requested.

Claims 24-34, 36, 37 and 74 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Takeda et al. Applicants respectfully traverse this rejection, because the cited reference does not disclose or suggest the claimed direction of the cutout pattern and the orientation of the liquid crystal molecules.

The conventional cutout pattern of Takeda has a width which is approximately $10\mu\text{m}$ (which may possibly correspond to the second width of the present invention). The liquid crystal molecules in the display area are inclined in a vertical direction with respect to the longitudinal direction, as shown in FIG. 1A below.

In the present invention, the fine pitch cutout patterns have a width of approximately $2\text{-}4\mu\text{m}$ that are formed periodically at intervals of $2\text{-}4\mu\text{m}$. As a result of the formation of these fine pitch cutout patterns, the liquid crystal molecules in the display area are inclined in parallel to the longitudinal direction in the present invention, as shown in FIG. 1B below.

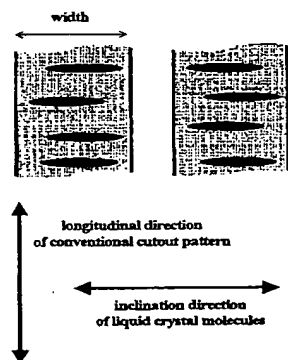


FIG. 1A
Conventional Orientation Control of "Takeda"

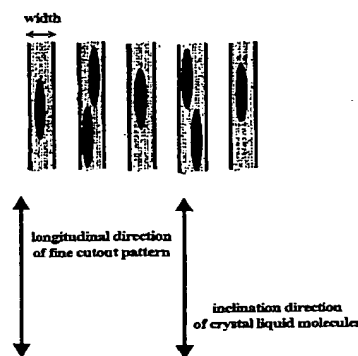


FIG. 1B
Conventional Orientation Control
of the Present Invention

Moreover, in the conventional MVA of Takeda, as shown below in FIG. 2, the liquid crystal molecules at edge parts of the cutout pattern are consecutively inclined when a voltage is applied due to a domino effect (see FIGS. 2(a) – 2(c) below). Accordingly, the liquid crystal molecules in the entire display area are inclined in a vertical direction with respect to the cutout pattern. That is, in the configuration of Takeda, there is no control other than the domino effect for the liquid crystal molecules in the display area.

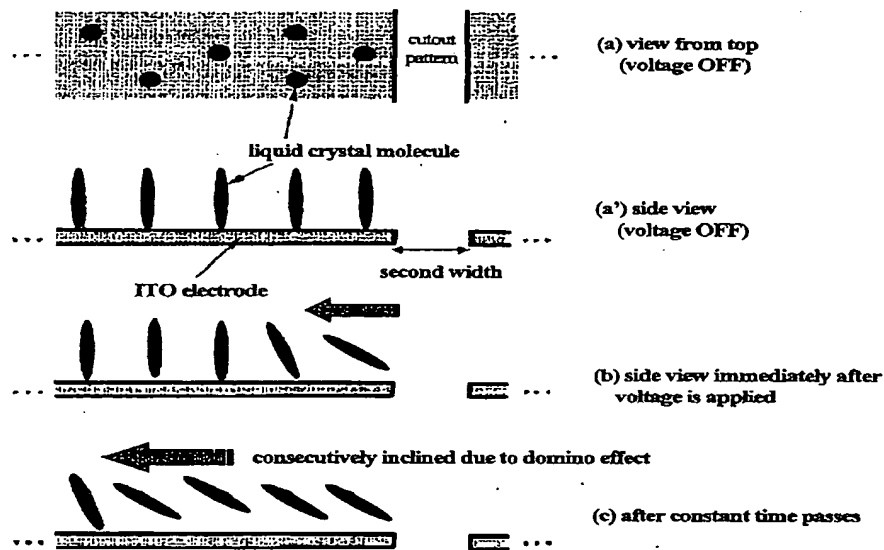


FIG. 2
Conventional Inclination Process of Liquid Crystal Molecules When Voltage is Applied

On the other hand, the present invention, as shown in FIG. 3 below, includes a configuration such that an inclination direction of the liquid crystal molecules are due to the fine pitch cutout pattern. Therefore, the liquid crystal molecules in the display area, can be collectively inclined in the inclination direction even without the domino effect. Therefore, even if the inclination direction is the same as that of the conventional configuration, means for controlling the inclination is different from the conventional means.

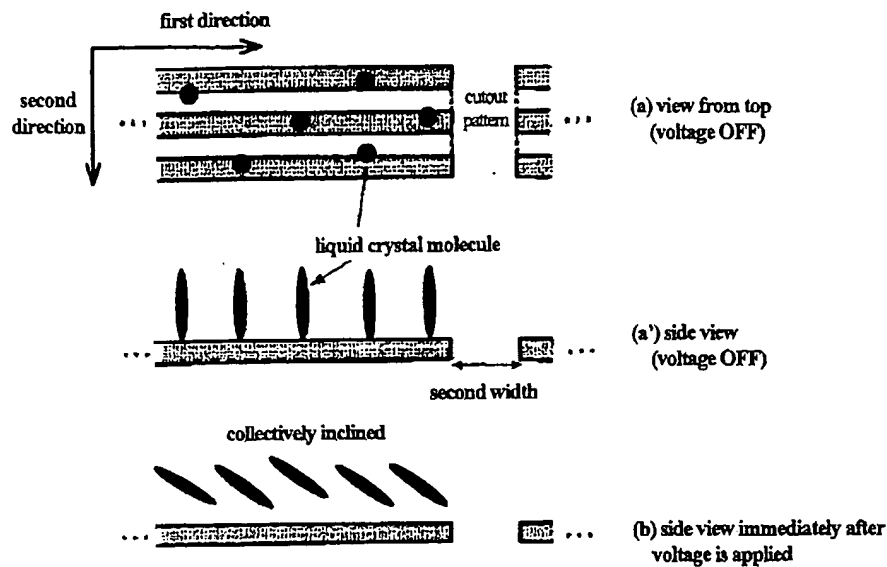



FIG. 3
Inclination Process of Liquid Crystal Molecules When Voltage is Applied,
According to the Present Invention

For all of the above reasons, Applicants request reconsideration and allowance of the claimed invention. The Examiner should contact Applicants' undersigned attorney if a telephone conference would expedite prosecution.

Respectfully submitted,

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